UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/505,342	06/24/2005	Takayuki Matsushima	17155/003001	5910

22511 7590 02/17/2009

OSHA LIANG L.L.P.
TWO HOUSTON CENTER
909 FANNIN, SUITE 3500
HOUSTON, TX 77010

EXAMINER	
GOFF II, JOHN L	

ART UNIT	PAPER NUMBER
1791	

NOTIFICATION DATE	DELIVERY MODE
02/17/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@oshaliang.com
buta@oshaliang.com

Office Action Summary	Application No.	Applicant(s)	
	10/505,342	MATSUSHIMA ET AL.	
	Examiner	Art Unit	
	John L. Goff	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 November 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4,5,7 and 8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,5,7 and 8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 August 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/24/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the arguments and IDS filed on 11/24/08.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 1, 4, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP09330947 (See also the machine translation and abstract) in view of JP 62004769 (newly cited in the IDS submitted 11/24/08 and see also the abstract) and JP 56018643 (newly cited in the IDS submitted 11/24/08 and see also the abstract).

JP09330947 discloses a method for producing an electrical device comprising arranging an adhesive layer (5 of Figure 1) containing a curable resin and electrically conductive particles (4 of Figure 1) added to the adhesive from the outset on a first electrode (3 of Figure 1) of a first object (7 of Figure 1), arranging an adhesive layer (6 of Figure 1) on a second electrode (2 of Figure 1) of a second object (1 of Figure 1), positioning the first and second electrodes of the first and second objects in register with each other, tightly contacting the adhesive layer on the first object with the adhesive layer on the second object, thrusting the first and second objects against each other to interconnect the first and second electrodes via the electrically conductive particles (Figures 2-4), and allowing the curable resin to be polymerized by heating (See Figures 1-4 and the abstract and paragraphs 10-14 of the machine translation). JP09330947 does not teach the adhesive layer arranged on the first electrode contains an epoxy resin and a silane

coupling agent and the adhesive layer arranged on the second electrode contains an aluminum alcoholate. However, there is no specific disclosure in JP09330947 of the use of any particular adhesives. It was known in the art of producing an electrical device by adhering first and second objects to use a two-pack curable adhesive, i.e. arranging an adhesive layer containing a curable resin on a first object and arranging a curing agent for the resin on the second object, as shown by JP 62004769 such that the adhesive has a long shelf life and is cured when desired by mixing the two layers wherein JP 56018643 specifically shows a two pack adhesive comprising a curable epoxy resin and a silane coupling agent as the first pack/layer and a curable epoxy and an aluminum alcoholate as the second pack/layer which adhesive has a long shelf life and is quickly cured when mixed (See the abstracts). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the curable resin of the adhesive layers arranged on the first and second electrodes in JP09330947 the two pack adhesive shown by JP 56018643 having a long shelf life and quick curing time when mixed used specifically as two layers on the first and second objects as shown by JP 62004769 such that the adhesive is cured between the two objects when desired.

As to the limitation of "thrusting and heating said first and second objects against each other for bonding to develop a cation by reaction of said silane coupling agent as a main component of said first curing agent and one or both of said aluminum chelate and said aluminum alcoholate of the second curing agent and for interconnecting said first and second electrodes through said electrically conductive particles and allowing said thermosetting resin to be cationically polymerized by heating", thrusting and heating the first and second objects against each other as taught by JP09330947 as modified by JP 56018643 and JP 62004769

includes bringing into contact epoxy resin, silane coupling agent, aluminum alcoholate, and conductive particles in a manner consistent and in agreement with that claimed and disclosed by applicants specification as resulting in reaction of the silane coupling agent and aluminum alcoholate to develop a cation which cation polymerizes the epoxy resin such that one of ordinary skill would readily expect that taught by JP09330947 as modified by JP 56018643 and JP 62004769 to react the same absent a showing otherwise.

Regarding claim 4, JP 56018643 does not require aluminum chelate. Claim 1 does not specifically require aluminum chelate rather claim 1 requires aluminum chelate and/or aluminum alcoholate such that because claim 4 does not further limit the aluminum alcoholate the claim limitation is met.

Regarding claim 8, JP 56018643 teaches the layers of the two pack adhesive may be applied in solvent as a liquid dispersion (See abstract). Claim 8 is not considered to expressly require the dispersion is sprayed. In the event it is shown that such is necessarily required the following rejection would apply. It is considered extremely well known in the art to apply a dispersion by spraying such that it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the adhesive layers as taught by JP 09330947 as modified by JP 56018643 and JP 62004769 using any well known technique in the art such as spraying as only the expected results would be achieved.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 09330947, JP 56018643, and JP 62004769 as applied to claims 1, 4, 7, and 8 above, and further in view of JP 09067427 (See also the abstract).

It is unclear if JP 56018463 teaches the silane coupling agent is represented by the claimed formula and includes an alkoxy group and an epoxy ring containing glycidyl group. It is well taken in the art that silane coupling agents for use in epoxy resins have the claimed formula and include an alkoxy group and an epoxy ring containing glycidyl group as shown by JP 09067427 (See abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the silane coupling agent in JP 09330947 as modified by JP 56018643 and JP 62004769 those having the well taken form of including an alkoxy group and an epoxy ring as shown by JP 09067427 only the expected results being achieved.

5. Claims 1, 5, 7, and 8 remain rejected under 35 U.S.C. 103(a) as being obvious over Matsushima (U.S. Patent Application Publication 2002/0151627) in view of JP07082533 (See also the machine translation and abstract) as set forth in paragraph 4 of the office action mailed 9/2/08.

6. Claim 4 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Matsushima and JP07082533 as applied to claims 1, 5, 7, and 8 above, and further in view of either one of Isozaki et al. (U.S. Patent 4,772,672) or JP07011152 (See also the abstract) as set forth in paragraph 5 of the office action mailed 9/2/08.

Response to Arguments

7. Applicant's arguments with respect to claims 1, 4, 5, 7, and 8 have been considered but are moot in view of the new ground(s) of rejection.

Applicants argue, "The Applicant respectfully notes that Matsushima is a § 102(e) reference and that both the present application and Matsushima are, and were at the time the invention was made, assigned to a common assignee, now named Sony Chemical and Information Device Corporation.".

It is unclear what is meant by "assigned to a common assignee" as a common assignee is not necessarily common ownership of both the present application and Matsushima at the time of the present invention. MPEP 706.02(l)(2) suggests the following statement to overcome the rejection by a showing of common ownership. "Application X and Patent A were, at the time the invention of Application X was made, owned by Company Z."

Conclusion

8. Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 11/24/08 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609.04(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571)272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John L. Goff/
Primary Examiner, Art Unit 1791